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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,024	01/23/2001	Robert Harcourt	8008	9339

7590 03/20/2003

WOODLING, KROST AND RUST
9213 Chillicothe Road
Kirtland, OH 44094

EXAMINER
ROSSI, JESSICA

ART UNIT	PAPER NUMBER
1733	11

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/768,024	HARCOURT, ROBERT	
	Examin r	Art Unit	
	Jessica L. Rossi	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/13/03, Amendment A, paper no. 10* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *5,6,8,10,14-16,21-24,31,37 and 43-47* is/are withdrawn from consideration.

5)☒ Claim(s) *25-29* is/are allowed.

6)☒ Claim(s) *1-4,7,11,12,17,30,32,35,36,38,41 and 42* is/are rejected.

7)☒ Claim(s) *9,13,18-20,33 and 34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 2/13/03. Claims 39-40 were canceled. Claims 1-38 and 41-47 are pending. Claims 5-6, 8, 10, 14-16, 21-24, 31, 37, and 43-47 are withdrawn **without traverse** as set forth in the previous office action, paper no. 9.

2. The rejection of claims 1-2, 32, and 38 under 35 U.S.C. 102(b) as being anticipated by Enomoto (of record), as set forth in the previous office action, has been withdrawn due to the added limitation of a non-contact energy source.

3. The rejection of claims 11-12 under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of Satzler (of record), as set forth in the previous office action, has been withdrawn due to the added limitation of non-contact heater.

4. The rejection of claim 17 under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of Satzler and Tanaka (of record), as set forth in the previous office action has been withdrawn due to the added limitation of a non-contact heater.

5. The rejection of claims 1-2 under 35 U.S.C. 103(a) as being unpatentable over Dougherty (of record) in view of Tanaka, as set forth in the previous office action, has been withdrawn due to the added limitation of a non-contact energy source.

6. The rejection of claims 11-12 under 35 U.S.C. 103(a) as being unpatentable over Satzler, as set forth in the previous office action, has been withdrawn due to the added limitation of a non-contact heater.

7. The rejection of claims 25-29 under 35 U.S.C. 103(a) as being unpatentable over Satzler in view of Enomoto and Tanaka, as set forth in the previous office action, has been withdrawn in light of Applicant's arguments.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 30 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 30, it is unclear what is meant by "the group consisting of a steam heater, an electric coil, ...or...". Are Applicants attempting to use Markush language? If so, it is pointed out that use of the word "or" is incorrect. Applicants must amend the claims to use the word "and" (See MPEP 2173.05(h)). It is noted that Applicants corrected this problem in the marked up copy of claim 30 but inadvertently failed to do it in the clean copy of the claim.

Claim Rejections - 35 USC § 102

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1, 32, 35, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Babbin (US 4559095; provided in IDS).

It is noted that Applicants invention is directed to making a hose where vulcanization takes place without contacting the hose with the vulcanizing apparatus (p. 1, lines 6-7).

Applicants disclose the non-contact apparatus including a steam heater, microwave heater, infrared heater, hot air heater, electric heater, or intense light (p. 11, lines 4-15).

With respect to claim 1, Babbin, teaches making a hose by pressurizing (column 5, lines 20-23) an extruded rubber hose (column 5, lines 58-59), trapping air inside the hose, and vulcanizing the hose from the outside to the inside using a non-contact microwave energy source (column 4, lines 57-60; column 5, lines 30-38). It is noted that Babbin teaches placing a thermoplastic jacket 40 around the hose prior to vulcanization (column 4, lines 42-43; column 5, lines 1-2); however, the jacket is transparent to the microwaves and does not serve to heat the hose (column 2, lines 51-56).

With respect to claim 32, Babbin teaches continuously vulcanizing the hose by pressurizing the hose from within (column 4, lines 62-63; column 5, lines 20-23), and vulcanizing the hose from the outside-in using a non-contact microwave energy source (column 4, lines 57-60; column 5, lines 30-38).

Regarding claim 35, Babbin teaches a radiant heater (i.e. microwave).

With respect to claim 38, Babbin teaches vulcanizing an endless hose (Figure 2), pressurizing the hose from within (column 5, lines 20-23), and vulcanizing the hose from the outside-in using a non-contact microwave energy source (column 4, lines 57-60; column 5, lines 30-38).

12. Claims 1-2 stand rejected under 35 U.S.C. 102(b) as being anticipated by Dougherty (US 4488921; of record).

With respect to claim 1, Dougherty teaches making a hose by pressurizing an extruded rubber hose 13 (column 4, lines 3-5), trapping air inside the hose (column 8, lines 59-63), and

vulcanizing the hose from the outside to the inside using a non-contact microwave energy source 45 (column 4, lines 25-29; column 8, lines 64-66).

Regarding claim 2, Dougherty teaches a reinforcement jacket 15 being woven (column 6, lines 8-22).

13. Claims 32, 35, and 38 stand rejected under 35 U.S.C. 102(b) as being anticipated by Torghele (US 4483815; of record) as set forth in paragraph 8 of the previous office action.

With respect to claims 32 and 38, Torghele teaches continuously and endlessly vulcanizing a hose by pressurizing the hose from within (Figure 1; column 3, lines 50-51) and vulcanizing the hose from the outside-in using a non-contact energy source (column 3, lines 23-22 and 40-43; column 4, lines 21-25 and 50-53). It is noted that the energy source is steam that circulates through the annular space 15 formed between housing 14 and tubular body 3, wherein the hose is heated without being contacted by the steam since the steam is separated from the hose by tubular body 3 (Figure 1).

Regarding claim 35, the reference teaches vulcanizing the hose by passing it through a heater that is a steam heater (column 3, lines 40-43).

Claim Rejections - 35 USC § 103

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095 in view of Enomoto (US 5453229; of record) and Babbin et al. (US 4512942; provided in IDS).

With respect to claim 1, it is noted that the examiner interpreted the Babbin '095 reference to teach that air is trapped inside the hose and the microwave energy source is non-contact in the 102 rejection set forth above.

If it is not taken that air is trapped inside the hose it would have been obvious to one of ordinary skill in the art at the time the invention was made to do so because it is know in the art when vulcanizing a hose from the outside-in where the hose is pressurized from within and the ends of the hose are sealed to trap air inside the hose, as taught by Enomoto (column 6, lines 37-38), and this would prevent air from escaping in order to keep the hose pressurized from within.

If it is not taken that the microwave energy source is non-contact it would have been obvious to one of ordinary skill in the art at the time the invention was made to have it be non-contact because the skilled artisan would have readily appreciated that microwave energy sources that are spaced apart from the object that requires radiation are well known and conventional, even in the continuous hose-vulcanizing art, as taught by Babbin '942 (Figure 1; column 1, lines column 3, lines 2-5).

16. Claims 32, 35-36, 38, and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095 in view of Babbin et al. '942.

With respect to claims 32 and 38, it is noted that the examiner interpreted the Babbin '095 reference to teach that the microwave energy source is non-contact in the 102 rejection set forth above. If it is not taken that the microwave energy source is non-contact it would have been obvious to one of ordinary skill in the art at the time the invention was made to have it be non-contact because the skilled artisan would have readily appreciated that microwave energy sources that are spaced apart from the object that requires radiation are well known and

conventional, even in the continuous hose-vulcanizing art, as taught by Babbin '942 (Figure 1; column 1, lines column 3, lines 2-5).

Regarding claim 36, Babbin '095 teaches using any conventional pressurizing method or apparatus that will maintain the shape of the hose during vulcanizing (column 5, lines 25-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the diameter of the hose by increasing or decreasing pressure in response to a decrease or increase in hose diameter in order to maintain the shape of the hose.

Regarding claim 38, it is noted the examiner interpreted the reference to mean that the hose was endless. If it is not taken that the hose is endless it would have been obvious for it to be because it is known in the art to vulcanize an endless hose using a non-contact microwave energy source, as taught by Babbin '942 (Figure 1), where this allows for continuous production of an unlimited amount of hose.

Regarding claim 41, selection of a vulcanizing time would have been within purview of the skilled artisan depending on the material used for the hose.

Regarding claim 42, Babbin '095 teaches vulcanizing at a temperature ranging from about 280-350 degrees F, but notes that this range depends on the material used (column 4, lines 66-68).

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095 in view of Enomoto and Babbin et al. '942, as applied to claim 1 above, and further in view of Derderian et al. (US 3972757; provided in IDS).

Regarding claim 2, Babbin '095 teaches the hose having reinforcement 30 but is silent as to what kind (column 4, lines 40-41). Selection of a particular reinforcement would have been

within purview of the skilled artisan at the time the invention was made depending on the desired effects, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a woven fabric reinforcement because such is known in the art, as taught by Derderian (column 3, lines 48-55).

18. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095, Enomoto, and Babbin et al. '942 as applied to claim 1 above, and further in view of Satzler (US 4517039; of record).

Regarding claim 3, Babbin '095 teaches extruding the inner hose material 20 (column 5, lines 57-58) and using air to pressurize the hose from within during vulcanization (column 5, lines 21-23), but is silent as to sealing the ends of the hose by engagement with a mandrel and pinch rollers.

It is known in the art to vulcanize a hose from the outside-in by extruding the inner hose material onto a mandrel (column 3, lines 38-49), suppling gas through the mandrel to pressurize the hose from within (column 3, lines 50-52), removing the hose from the mandrel where a seal is formed as the hose exits the mandrel (column 3, lines 44-45), vulcanizing the hose by passing it through a heated bath, and sealing the other end of the hose with clamping means positioned downstream of the vulcanizing apparatus (column 5, lines 1-2), as taught by Enomoto.

It is also known in the art to vulcanize a hose from the outside-in by passing it through a vulcanizing bath 30 where pinch rollers 78, positioned downstream of the vulcanizing apparatus, pinch, seal, and draw the vulcanized hose out of the bath, as taught by Satzler (Figure 1; column 4, lines 17-20; column 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extrude the inner hose of Babbin '095 onto a mandrel, remove the hose from the mandrel where a seal is formed as the hose exits the mandrel prior to entering the vulcanizing apparatus, and seal the other end of the hose with clamping means in the form of pinch rollers positioned downstream from the vulcanizing apparatus because such is known in the art, as taught by Enomoto and Satzler, where sealing the ends of the hose would allow pressurization to be maintained within and the pinch rollers would serve the dual purpose of sealing and drawing out the hose.

19. Claims 11-12 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095 in view of Enomoto, Satzler, and Babbin et al. '942.

With respect to claim 11, these limitations were addressed with respect to claims 1 and 3 above.

Regarding claim 12, Babbin '095 teaches vulcanizing at a temperature ranging from about 280-350 degrees F, but notes that this range depends on the material used (column 4, lines 66-68).

With respect to claim 17, all the limitations were addressed with respect to claims 1-2 and 3, except extruding rubber onto, into and through the woven reinforcement. Babbin '095 teaches extruding a rubber cover material 40 onto the reinforcement 30 (column 2, lines 59-61; column 5, lines 57-62). The skilled artisan would have readily appreciated that material extruded onto a woven fabric would pass onto, into, and through the fabric because of the openings (as small as they may be) between warps and wefts of the fabric.

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Babbin '095 in view of Enomoto, Satzler, Babbin et al. '942, and Tanaka (US 4326905; of record).

With respect to claim 17, if it is not taken that the extruded material would pass into and through the woven fabric of Babbin '095, the skilled artisan would have appreciated that the extruded material would pass onto, into, and through the woven reinforcement, as evidenced by Tanaka (column 6, line 26; column 7, lines 50-54 and 61-64).

21. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dougherty in view of Babbin et al. '942.

With respect to claim 1, it is noted the examiner interpreted the Dougherty reference to teach that the microwave energy source is non-contact in the 102 rejection set forth above. If it is not taken that the microwave energy source is non-contact it would have been obvious to one of ordinary skill in the art at the time the invention was made to have it be non-contact because the skilled artisan would have readily appreciated that microwave energy sources that are spaced apart from the object that requires radiation are well known and conventional, even in the continuous hose-vulcanizing art, as taught by Babbin '942 (Figure 1; column 1, lines column 3, lines 2-5).

22. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougherty in view of Tanaka, Enomoto, and Satzler.

With respect to claim 17, Dougherty teaches extruding the inner rubber hose material 13 onto a mandrel, reinforcing this material with woven fabric 15, and placing outer rubber hose material 19, being of the same material as inner 13, onto the reinforcement (Figure 3; column 4, lines 1-5 and 26-29; column 6, lines 9-22 and 60-63). The reference teaches pressurizing the

unvulcanized hose with a gas (column 8, lines 59-63). The reference teaches sealing the inside of the hose with respect to a mandrel (column 7, lines 50-58). The reference teaches pulling the hose through a non-contact microwave heater and vulcanizing the hose (column 8, lines 55-68; column 9, lines 6-8). The reference is silent as to extruding rubber into, onto, and through the woven fabric and pinching and sealing the hose as it exits the vulcanizing apparatus.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extrude the outer hose material onto the woven reinforcement of Dougherty because such is a well known technique in the hose art for applying material to a woven reinforcement, as taught by Tanaka (column 7, lines 50-55 and 60-64), where extrusion ensures uniform coating of the reinforcement. Furthermore, the skilled artisan would have readily appreciated that material extruded onto a woven fabric would pass onto, into, and through the fabric because of the openings (as small as they may be) between warps and wefts of the fabric.

It is known in the art to vulcanize a hose from the outside-in by extruding the inner hose material onto a mandrel (column 3, lines 38-49), suppling gas through the mandrel to pressurize the hose from within (column 3, lines 50-52), removing the hose from the mandrel (column 3, lines 44-45), vulcanizing the hose by passing it through a heated bath, and sealing the vulcanized hose with clamping means positioned downstream of the vulcanizing apparatus (column 5, lines 1-2) as the hose exits the vulcanizing apparatus, as taught by Enomoto.

It is also known in the art to vulcanize a hose from the outside-in by passing it through a vulcanizing bath 30 where pinch rollers 78, positioned downstream of the vulcanizing apparatus, pinch, seal, and draw the vulcanized hose out of the bath, as taught by Satzler (Figure 1; column 4, lines 17-20; column 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to pinch and seal the vulcanized hose of Dougherty with clamping means in the form of pinch rollers positioned downstream from the vulcanizing apparatus because such is known in the art, as taught by Enomoto and Satzler, where sealing the ends of the hose would allow pressurization to be maintained within and the pinch rollers would serve the dual purpose of sealing and drawing out the hose.

23. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougherty, Tanaka, Enomoto, Satzler, and Babbin '942.

With respect to claim 17, it is noted the examiner interpreted the Dougherty reference to teach that the microwave energy source is non-contact in the 103 rejection set forth above. If it is not taken that the microwave energy source is non-contact it would have been obvious to one of ordinary skill in the art at the time the invention was made to have it be non-contact because the skilled artisan would have readily appreciated that microwave energy sources that are spaced apart from the object that requires radiation are well known and conventional, even in the continuous hose-vulcanizing art, as taught by Babbin '942 (Figure 1; column 1, lines column 3, lines 2-5).

24. Claims 1 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Torghele in view of Tanaka and Enomoto as set forth in paragraph 16 of the previous office action.

With respect to claim 1, Torghele teaches pressurizing an extruded rubber hose (column 3, lines 50-51) and vulcanizing the hose from the outside-in using a non-contact energy source (column 3, lines 23-22 and 40-43; column 4, lines 21-25 and 50-53). It is noted that the energy

source is steam that circulates through the annular space 15 formed between housing 14 and tubular body 3, wherein the hose is heated without being contacted by the steam since the steam is separated from the hose by tubular body 3 (Figure 1). The reference is silent as to extruding the hose and trapping the air inside the hose.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extrude the rubber outer layer 24 of the hose of Torghele because such is a well known technique for applying hose material in the art, as taught by Tanaka (column 7, lines 50-55 and 61-63), where extruding allows for uniform coating of the reinforcement layer 23 of Torghele.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to trap the air inside the hose of Torghele because it is known in the art at to make a hose where pressurized gas is placed inside the hose, prior to vulcanization from the outside-in, where the gas is trapped inside the hose, as taught by Enomoto (column 4, line 62 – column 5, line 2), where this ensures that the hose maintains its tubular shape during vulcanization by preventing escape of the gas.

Regarding claim 4, Torghele teaches vulcanizing the hose with a first energy source 11 (Figure 1; column 3, lines 23-25; column 4, lines 21-25) followed by vulcanizing the hose with the non-contact steam heater (Figure 1; column 3, lines 40-43; column 4, lines 50-53). It is noted that the steam heater is a non-contact steam heater because the steam does not contact the hose.

25. Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Torghele, Tanaka, and Enomoto as applied to claim 4 above, and further in view of Dougherty as set forth in paragraph 17 of the previous office action.

Regarding claim 7, Torghele is silent as to the first energy source being a hot air heater. Selection of a particular heater would have been within purview of the skilled artisan absent any unexpected results. However, it would have been obvious to use a hot air heater as an alternative to the heater of Torghele because one reading the reference as a whole would have appreciated that the type of heater is not critical to the invention and such a hot air heater for vulcanizing a hose having a pressurized gas within is known in the art, as taught by Dougherty (column 8, lines 59-66).

26. Claims 36 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torghele.

Regarding claim 36, it would have been obvious to one of ordinary skill in the art at the time the invention was made to control the diameter of the hose by increasing or decreasing pressure in response to a decrease or increase in hose diameter in order to maintain the shape of the hose.

Regarding claim 41, selection of a vulcanizing time would have been within purview of the skilled artisan depending on the material used for the hose.

Regarding claim 42, selection of a vulcanizing temperature would have been within purview of the skilled artisan at the time the invention was made depending on the material used.

Allowable Subject Matter

27. Claims 25-29 are allowed.

With respect to claim 25, the prior art fails to teach or suggest a process for making a hose comprising feeding **woven cloth over a tube and mandrel**, supplying **gas through** the **woven cloth, into** the **tube**, and **through** the **mandrel**, extruding rubber onto, into, and through

the woven fabric forming an unvulcanized hose, pressurizing the unvulcanized hose, sealing the inside of the hose with respect to the mandrel, vulcanizing the hose, and sealing the hose as it is removed from the vulcanizer. It is noted that Applicants brought this to the examiner's attention on p. 13 of the response dated 2/13/03.

28. Claims 9, 13, 18-20, and 33-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 9, the prior art fails to teach or suggest pressurizing the hose by supplying air through a check valve in a mandrel and into a cavity formed by the check valve, the mandrel, the hose and pinch rollers.

Regarding claim 13, the prior art fails to teach or suggest vulcanizing by a non-contact steam tube.

Regarding claim 18, the prior art fails to teach or suggest pressurizing the unvulcanized hose by intermittently supplying gas under pressure through a gas supply cup to the inside of the hose.

Regarding claims 19-20, they depend on claim 18.

Regarding claim 33, the prior art fails to teach or suggest pressurizing the hose by supplying gas under pressure through a check valve located in a mandrel.

Regarding claim 34, it depends on claim 33.

29. Claim 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claim 30, it depends on claim 25.

Response to Arguments

30. Applicant's arguments filed 2/13/03 have been fully considered but they are not persuasive.

31. On page 7 of the arguments, Applicants argue that Enomoto fails to teach or suggest a non-contact energy source or non-contact heater.

The examiner respectfully points out that this reference was not relied upon for its method of vulcanizing.

32. On page 7 of the arguments, Applicants argue that Torghele fails to teach or suggest a non-contact energy source.

Applicants are invited to reread the rejection set forth in paragraph 13 above.

33. On page 11 of the arguments, Applicants argue that Dougherty teaches contact heating.

Applicants are invited to reread the rejection set forth in paragraph 21 above.

Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733

jlr
March 18, 2003

Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700